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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,948	09/20/2001	Kimio Tatsuno	NITT.0041	9931

7590 03/29/2004

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,948

Applicant(s)

TATSUNO ET AL.

Examiner

Armando Rodriguez

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed December 19, 2004 have been fully considered but they are not persuasive.

Applicant's arguments on pages 9 and 10 regarding claim 1 pertaining to the etalon, where applicant implies that the cited prior art does not disclose controlling the temperature of the cited etalon; applicant's attention is directed to column 10 lines 30-40, where Komiyama et al clearly discusses controlling the wavelength by adjusting the temperature of the etalon.

Applicant's arguments on page 11 regarding claim 16 pertaining to the recited ranges, which encompass a broad range and a narrow range where the narrow range is within the broad range, thereby applicant has not established the metes and bounds of the claim.

Applicant's arguments on page 12 regarding the cited May reference, the reference is cited as a 35 USC 103 reference. It is not clear of the arguments pertaining to the published date of the reference since the application has an effective filing date prior to applicant's filing date or foreign priority date, however applicant's attention is directed to MPEP 2136.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 16,

Applicant's claim language pertaining to the use of the "wherein" clause and the use of "arranged" do not limit the claim to a particular structure, since "wherein" suggest optional and "arranged" does not define the structural relationship; furthermore the claims are narrative in form, which describes the function of the optical module, thereby the claims are vague and are not clear.

Claims 1 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: no structure is recited to perform the recited function of "the laser source is maintained at a given value".

Regarding claims 1 and 16,

It is not clear within the claim language, how the recited "wavelength error signal" is determined, applicant's use of "defined" does not establish the necessary structure to obtain the error signal, therefore the claim is incomplete.

Claims 7 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the etalon does not provide any structural relationship with the elements of the module, thereby the

protrusive portion will not have any structural relationship within the module, since the etalon is mounted on the recited portion.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation a/10<h>4a, and the claim also recites a/20<h>2a which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2828

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Komiyama et al (PN 6,477,190).

Regarding claims 1-7,12,14,15

Figures 22 and 23 illustrates an optical module having a laser source (10), an output forward laser beam and back facet monitoring laser beam. The monitoring laser beam is divided by beam splitter (24) into two portions beams, where one portion is detected by photodetector (25), a second portion is filtered by etalon (23) and transmitted to photodetector (13), where the optical components of the module are positioned on mount carriers (17-1) and (17-2), which mounted on TEC (14-2) for temperature control of the optical module. Figure 24 illustrates the feedback circuit of the optical module, which makes the necessary temperature adjustment in accordance to the compared signals received by the photodetectors.

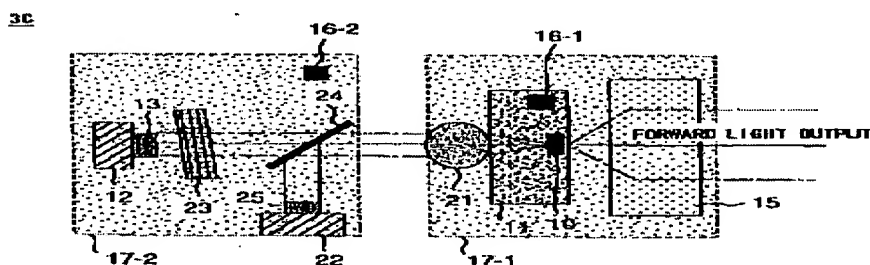
Regarding claim 11,

See figure 28 for dividing the laser beam into more than two portions.

Regarding claim 13,

The etalon does resemble a rectangular shape.

FIG.23



Art Unit: 2828

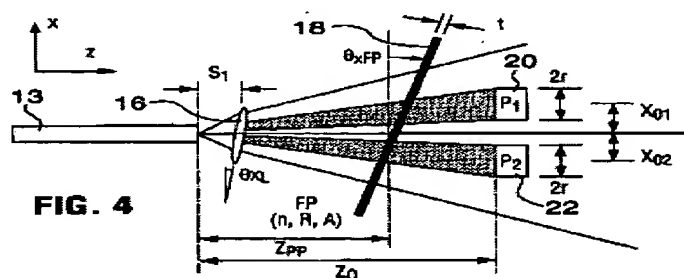
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Villeneuve et al (PN 5,825,792).

Figure 4 illustrates a laser system having a laser source (13), an etalon (18) and two photodetectors (20) and (22), where the laser beam is filtered by the etalon, which is positioned at an angle to provide a difference in path length for the laser beam the beam is transmitted into the photodetectors. Figure 5 illustrates a feedback circuit for the laser beam, which provides temperature control of the system in accordance with the compared signals received from the photodetectors.

Regarding claim 19,20,

The etalon does resemble a rectangular shape.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiyama et al (PN 6,477,190) in view of May (US 2002/0163650).

Figures 22 and 23 illustrates an optical module having a laser source (10), an output forward laser beam and back facet monitoring laser beam. The monitoring laser beam is divided by beam splitter (24) into two portions beams, where one portion is detected by photodetector (25), a second portion is filtered by etalon (23) and transmitted to photodetector (13), where the optical components of the module are positioned on mount carriers (17-1) and (17-2), which mounted on TEC (14-2) for temperature control of the optical module. Figure 24 illustrates the feedback circuit of the optical module, which makes the necessary temperature adjustment in accordance to the compared signals received by the photodetectors.

Komiyama et al does not describe the use of a cover to adjust the temperature of the etalon.

May discloses in paragraph [0056] and illustrates in figure 11, providing an enclosure (622) for the etalon (62), which will control the temperature of the etalon and maintain the temperature of the etalon similar to the laser source.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to enclose the etalon of Komiyama et al with the enclosure of May because it would provide temperature control of the etalon.

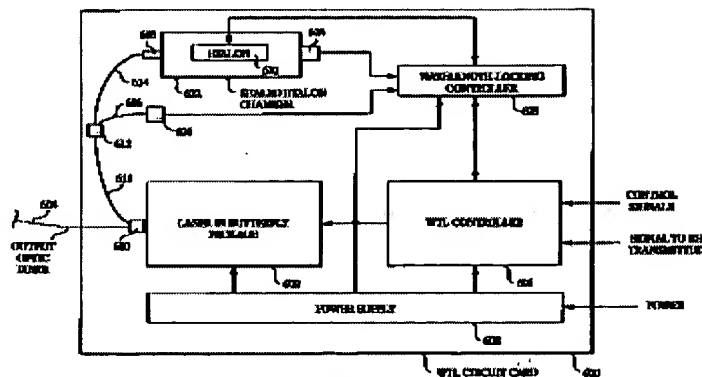


FIG. 11

Claims 16,22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villeneuve et al (PN 5,825,792) in view of May (US 2002/0163650).

Figure 4 illustrates a laser system having a laser source (13), an etalon (18) and two photodetectors (20) and (22), where the laser beam is filtered by the etalon, which is positioned at an angle to provide a difference in path length for the laser beam the beam is transmitted into the photodetectors. Figure 5 illustrates a feedback circuit for the laser beam, which provides temperature control of the system in accordance with the compared signals received from the photodetectors.

Villeneuve et al does not describe the use of a cover to adjust the temperature of the etalon.


May discloses in paragraph [0056] and illustrates in figure 11, providing an enclosure (622) for the etalon (62), which will control the temperature of the etalon and maintain the temperature of the etalon similar to the laser source.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to enclose the etalon of Komiyama et al with the enclosure of May because it would provide temperature control of the etalon.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or  munications from the examiner should be directed to Armando Rodriguez whose telephone number is 571-272-1952. The examiner can normally be reached on 10-hour day / M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 571-272-1941. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

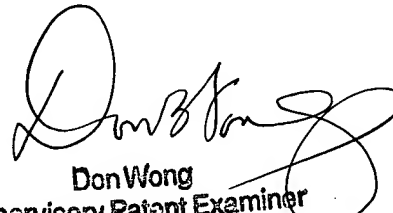
Art Unit: 2828

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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